

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: US 109/765,555B

Source: IFW16

Date Processed by STIC: 12-16-07

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 12/16/2004

PATENT APPLICATION: US/09/765,555B

TIME: 10:54:13

Input Set : D:\27801-20014.20 - Sub Seqlist.txt

Output Set: N:\CRF4\12162004\I765555B.raw

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3 <110> APPLICANT: BARBAS, Carlos
4     STEGE, Justin
5     GUAN, Xueni
6     DALMIA, Bipin
8 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS TO MODULATE
9     EXPRESSION IN PLANTS
11 <130> FILE REFERENCE: 27801-20014.20
13 <140> CURRENT APPLICATION NUMBER: 09/765,555B
14 <141> CURRENT FILING DATE: 2001-01-19
16 <150> PRIOR APPLICATION NUMBER: 09/620,897
17 <151> PRIOR FILING DATE: 2000-07-21
19 <150> PRIOR APPLICATION NUMBER: US 60/177,468
20 <151> PRIOR FILING DATE: 2000-01-21
22 <160> NUMBER OF SEQ ID NOS: 78
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 532
28 <212> TYPE: DNA
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: Promoter CsVMV
34 <400> SEQUENCE: 1
35 tctagaaact agcttccaga aggtaattat ccaagatgta gcatcaagaa tccaatgttt      60
36 acgggaaaaa ctatggaagt attatgtgag ctgagcaaga agcagatcaa tatgcggcac      120
37 atatgcaacc tatgttcaaa aatgaagaat gtacagatac aagatcctat actgccagaa      180
38 tacgaagaag aatacgtaga aattgaaaaa gaagaaccag gcgaagaaaa gaatcttgaa      240
39 gacgtaagca ctgacgacaa caatgaaaag aagaagataa ggtcgggtgat tgtgaaagag      300
40 acatagagga cacatgtaag gtggaaaatg taagggcgga aagtaacctt atcacaaagg      360
41 aatcttatcc cccactactt atccttttat atttttccgt gtcatttttg cccttgagtt      420
42 ttcctatata aggaaccaag ttcggcattt gtgaaaacaa gaaaaaattt ggtgtaagct      480
43 attttctttg aagtactgag gatacaactt cagagaaatt tgtaagtttg ta          532
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 18
47 <212> TYPE: DNA
48 <213> ORGANISM: Artificial Sequence
50 <220> FEATURE:
51 <223> OTHER INFORMATION: Zinc finger protein 2C7 binding site
53 <400> SEQUENCE: 2
54 gcgtgggcgg cgtgggcg                                     18
56 <210> SEQ ID NO: 3
57 <211> LENGTH: 51
58 <212> TYPE: DNA
59 <213> ORGANISM: Artificial Sequence

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61 <220> FEATURE:
62 <223> OTHER INFORMATION: Promoter pc7rbTATA
64 <400> SEQUENCE: 3
65 cccgggtata taataagctt ggcattccgg tactgttggt aaagccacca t      51
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68 <211> LENGTH: 3121
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: pND3008 coding region
75 <400> SEQUENCE: 4
76 agcgtgaccc ggtcgtgccc ctctctagag ataatgagca ttgcatgtct aagttataaa      60
77 aaattaccac atatTTTTTT tgtcacactt gtttgaagtg cagtttatct atctttatac      120
78 atatatTTaa actttactct acgaataata taatctatag tactacaata atatcagtgt      180
79 tttagagaat catataaatg aacagttaga catgggtctaa aggacaattg agtattttga      240
80 caacaggact ctacagtttt atcttttttag tgtgcatgtg ttctctcttt tttttgcaaa      300
81 tagcttcacc tatataatac ttcatccatt ttattagtag atccatttag ggtttagggt      360
82 taatggTTTT tatagactaa ttttttttagt acatctatTT tattctatTT tagcctctaa      420
83 attaagaaaa ctaaaactct atttttagttt ttttatttaa taatttagat ataaaataga      480
84 ataaaataaa gtgactaaaa attaaacaaa taccctttaa gaaattaaaa aaactaagga      540
85 aacattttttc ttgtttcgag tagataatgc cagcctgtta aacgccgtcg acgagtctaa      600
86 cggacaccaa ccagcgaacc agcagcgtcg cgtcgggcca agcgaagcag acggcacggc      660
87 atctctgtcg ctgctcttgg acccctctcg agagttccgc tccaccgttg gacttgctcc      720
88 gctgtcggca tccagaaatt gcgtggcgga gcggcagacg tgagccggca cggcaggcgg      780
89 cctcctctc ctctcacggc acggcagcta cgggggatTC ctttccacc gctccttcgc      840
90 tttcccttcc tcgcccgcg taataaatag acacccctc cacacccctc tcccccaacc      900
91 tcgtgttggt cggagcgcac acacacacaa ccagatctcc cccaaatcca cccgtcggca      960
92 cctccgcttc aaggtacgcc gctcgtcctc ccccccccc cctctctacc ttctctagat      1020
93 cggcgttccg gtccatggtt agggcccggt agttctactt ctgttcatgt ttgtgttaga      1080
94 tccgtgtttg tgtagatcc gtgctgctag cgttcgtaca cggatgcgac ctgtacgtca      1140
95 gacacgttct gattgctaac ttgccagtgt ttctcttttg ggaatcctgg gatggctcta      1200
96 gccgttccgc agacgggatc gatttcatga ttttttttgt ttcgttgcat agggtttggt      1260
97 ttgccctttt cctttatttc aatatatgcc gtgcacttgt ttgtcgggtc atcttttcat      1320
98 gctttttttt gtcttggttg tgatgatgtg gtctggttgg gcggtcgttc tagatcggag      1380
99 tagaattctg tttcaaaacta cctggtggat ttattaattt tggatctgta tgtgtgtgcc      1440
100 atacatattc atagttacga attgaagatg atggatggaa atatcgatct aggataggta      1500
101 tacatgttga tgcgggtttt actgatgcat atacagagat gctttttgtt cgcttggttg      1560
102 tgatgatgtg gtgtggttgg gcggtcgttc attcgttcta gatcggagta gaatactgtt      1620
103 tcaaaactacc tgggtgattt attaatTTtg gaactgtatg tgtgtgtcat acatcttcat      1680
104 agttacgagt ttaagatgga tggaaatata gatctaggat aggtatacat gttgatgtgg      1740
105 gttttactga tgcataata tgatggcata tgcagcatct attcatatgc tctaaccctg      1800
106 agtacctatc tattataata aacaagtatg ttttataatt attttgatct tgatataact      1860
107 ggatgatggc atatgcagca gctatatgtg gattttttta gccctgcctt catacgtat      1920
108 ttatttgctt ggtactgttt cttttgtcga tgcctaccct gttgttttgg gttacttctg      1980
109 caggtcgaact ctagaggatc tatggcccag gcggccctcg agctcccta tgcctgccct      2040
110 gtcgagtcct gcgacgcgcg cttttctaag tcggctgacg tgaagcgcca tatccgcac      2100
111 cacacaggcc agaagccctt ccagtgtcga atatgcatgc gtaacttcag tcgtagtgac      2160
112 caccttacca cccacatccg caccacacac ggcgagaagc cttttgcctg tgacatttgt      2220
113 gggaggaagt ttgccaggag tgatgaacgc aagaggcata ccaaaatcca taccggtgag      2280

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114 aagccctatg cttgccctgt cgagtcctgc gatcgccgct tttctaagtc ggctgatctg 2340
115 aagcgccata tccgcatcca cacaggccag aagcccttcc agtgtcgaat atgcatgcgt 2400
116 aacttcagtc gtagtgacca ccttaccacc cacatccgca cccacacagg cgagaagcct 2460
117 tttgectgtg acatttgtgg gaggaagttt gccaggagtg atgaacgcaa gaggcatacc 2520
118 aaaatccatt taagacagaa ggactctaga actagtggcc aggccggcca ggctagcccg 2580
119 aaaaagaaac gcaaagttgg gcgcgccgac gcgctggacg atttcgatct cgacatgctg 2640
120 ggttctgatg cctcctgatga ctttgacctg gatatgttgg gaagcgacgc attggatgac 2700
121 tttgatctgg acatgctcgg ctccgatgct ctggacgatt tcgatctcga tatgttaatt 2760
122 aactaccgtg acgacgttcc ggactacgct tcttgagaat tcgcggccgc gggcccgcgc 2820
123 ctagggagga gctcaagatc ccccgattt ccccgatcgt tcaaacattt ggcaataaag 2880
124 tttcttaaga ttgaatcctg ttgccggtct tgcgatgatt atcatctaatt ttctgttgaa 2940
125 ttacgttaag catgtaataa ttaacatgta atgcatgacg ttatttatga gatgggtttt 3000
126 tatgattaga gtcccgcaat tatacattta atacgcgata gaaaacaaaa tatagcgcg 3060
127 aaactaggat aaattatcgc gcgcggtgtc atctatgtta ctagatccgg gaattgggta 3120
128 c 3121
130 <210> SEQ ID NO: 5
131 <211> LENGTH: 3069
132 <212> TYPE: DNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: pND3018 coding region
138 <400> SEQUENCE: 5
139 agcgtgaccc ggtcgtgccc ctctctagag ataatgagca ttgcatgtct aagttataaa 60
140 aaattaccac atattttttt tgtcacactt gtttgaagtg cagtttatct atctttatac 120
141 atatatTTaa actttactct acgaataata taatctatag tactacaata atatcagtgt 180
142 tttagagaat catataaatg aacagttaga catggtctaa aggacaattg agtattttga 240
143 caacaggact ctacagtttt atcttttttag tgtgcatgtg ttctcctttt tttttgcaaa 300
144 tagcttcacc tatataatac ttcatccatt ttatttagtac atccatttag ggtttagggt 360
145 taatggtttt tatagactaa tttttttagt acatctatct tattctatct tagcctctaa 420
146 attaagaaaa ctaaaactct attttagttt ttttatttaa taatttagat ataaaaataga 480
147 ataaaaataa gtgactaaaa attaaacaaa taccctttta gaaattaaaa aaactaagga 540
148 aacatttttc ttgtttcgag tagataatgc cagcctgtta aacgccgtcg acgagtctaa 600
149 cggacaccaa ccagcgaacc agcagcgtcg cgtcgggcca agcgaagcag acggcacggc 660
150 atctctgtcg ctgcctctgg acccctctcg agagtccgc tccaccgttg gacttgctcc 720
151 gctgtcggca tccagaaatt gcgtggcgga gcggcagacg tgagccggca cggcaggcgg 780
152 cctcctcctc ctctcacggc acggcagcta cgggggattc ctttcccacc gtccttcgc 840
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154 tcgtgttggt cggagcgcac acacacacaa ccagatctcc cccaaatcca cccgtcggca 960
155 cctccgcttc aaggtacgcc gctcgtcctc ccccccccc cctctctacc ttctctagat 1020
156 cggcgcttcg gtccatggtt agggccccgt agttctactt ctgttcatgt ttgtgttaga 1080
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161 gctttttttt gtcttggttg tgatgatgtg gtctggttgg gcggtcgttc tagatcggag 1380
162 tagaattctg tttcaaacta cctggtggat ttattaattt tggatctgta tgtgtgtgcc 1440
163 atacatattc atagttacga attgaagatg atggatggaa atatcgatct aggataggta 1500
164 tacatgttga tgcgggtttt actgatgcat atacagagat gctttttgtt cgcttggttg 1560
165 tgatgatgtg gtgtggttgg gcggtcgttc attcgttcta gatcggagta gaatactgtt 1620

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166 tcaaactacc tgggtgtatattt attaatatttg gaactgtatg tgtgtgtcat acatcttcat 1680
167 agttacgagt ttaagatgga tggaaatata gatctaggat aggtatacat gttgatgtgg 1740
168 gttttactga tgcataataca tgatggcata tgcagcatct attcatatgc tctaacttg 1800
169 agtacctata tattataata aacaagtatg ttttataatt attttgatct tgatataactt 1860
170 ggatgatggc atatgcagca gctatatgtg gattttttta gccctgcctt catacgctat 1920
171 ttatttgctt ggtactgttt cttttgtcga tgcacacct gttgtttggt gttacttctg 1980
172 caggctgact ctaggagatc cactagttag ccatgggcta gcatggcgcg tgcggtgcgc 2040
173 atgaacatcc agatgctgct cgaagccgct gattatctgg aacgcccggga gcgcgaagcc 2100
174 gagcacggct acgccagcat gctgccatat ccgaaaaaga aacgcaagggt ggcccaggcg 2160
175 gccctcgagc tcccctatgc ttgccctgtc gagtctgctg atcgccgctt ttctaagtcg 2220
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177 tgcatgcgta acttcagtcg tagtgaccac cttaccaccc acatccgcac ccacacaggc 2340
178 gagaagcctt ttgcctgtga catttggtggg aggaagtttg ccaggagtga tgaacgcaag 2400
179 aggcatacca aaatccatac cggtgagaag ccctatgctt gccctgtcga gtcctgcgat 2460
180 cgccgctttt ctaagtcggc tgatctgaag cgccatatcc gcatccacac aggccagaag 2520
181 cccttccagt gtcgaatatg catgcgtaac ttcagtcgta gtgaccacct taccaccac 2580
182 atccgcaccc acacaggcga gaagcctttt gctgtgaca tttgtgggag gaagtttgcc 2640
183 aggagtgatg aacgcaagag gcataccaaa atccatttaa gacagaagga ctctagaact 2700
184 agtggccagg ccggccagta ccggtacgac gttccggact acgcttcttg aaagcttggt 2760
185 accgagctcg gatcccccga atttccccga tcgttcaaac atttggcaat aaagtttctt 2820
186 aagattgaat cctgttgccg gtcttgcgat gattatcatc taatttctgt tgaattacgt 2880
187 taagcatgta ataattaaca tgtaatgcat gacgttatct atgagatggg tttttatgat 2940
188 tagagtcccg caattataca tttaatacgc gatagaaaac aaaatatagc gcgcaaacta 3000
189 ggataaatta tcgcgcgcgg tgatcatctat gttactagat ccgggaattc cggaccggta 3060
190 ccagcggcc 3069
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193 <211> LENGTH: 156
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: 6X2C7 binding site
200 <400> SEQUENCE: 6
201 cgtgctagcg cgtgggcggc gtgggcgaac aagcgtgggc ggctgtgggc aacaagcgtg 60
202 ggccggcgtg gcgactagt ctacgcgtg ggccggcgtg gcgaacaagc gtgggcggcg 120
203 tgggcgaaca agcgtgggcg gcgtgggcga ctagt 156
205 <210> SEQ ID NO: 7
206 <211> LENGTH: 18
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: ZFPap3
213 <400> SEQUENCE: 7
214 gatggagttg aagaagta 18
216 <210> SEQ ID NO: 8
217 <211> LENGTH: 21
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: ZFP from -85 to -65

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225 gcctccttcc tctctcact c                                21
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228 <211> LENGTH: 18
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: ZFPm1 from -68 to -85
235 <400> SEQUENCE: 9
236 tgagaggagg aaggaggc                                18
238 <210> SEQ ID NO: 10
239 <211> LENGTH: 18
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: ZFPm2 from -65 to -82
246 <400> SEQUENCE: 10
247 gaggtagagg aggaagga                                18
249 <210> SEQ ID NO: 11
250 <211> LENGTH: 24
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: ZFP from 294 to 317
257 <400> SEQUENCE: 11
258 gccactact acggtccct cacc                            24
260 <210> SEQ ID NO: 12
261 <211> LENGTH: 18
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: ZFPm3 from 311 to 294
268 <400> SEQUENCE: 12
269 ggagccgtag tagttggc                                18
271 <210> SEQ ID NO: 13
272 <211> LENGTH: 18
273 <212> TYPE: DNA
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: ZFPm4 from 317 to 300
279 <400> SEQUENCE: 13
280 ggtgaggagg ccgtagta                                18
282 <210> SEQ ID NO: 14
283 <211> LENGTH: 3300
284 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Partial sequence of pMal-m1 and zinc finger
289      protein ZFPm1

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**VERIFICATION SUMMARY**

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